

## APPENDIX F

### PREVENTIVE SAFETY MEASURES IN HANDLING OF PESTICIDES

- F-1. Follow the label instructions on each container before using the contents. The manufacturers are required by law to list recommended precautions.
- F-2. Weather conditions are important. Winds would carry toxic sprays and dusts to areas not under your control, causing accidental poisoning to the public or domestic animals.
- F-3. Smoking, eating or drinking is not permitted while pesticides are being handled. It should also be noted that rules of good personal hygiene will be practiced as well.
- F-4. All pesticides must be handled in well-ventilated areas to minimize inhalation of toxic vapors.
- F-5. Shower and washing facilities must be near pesticide mixing areas; drains should be separate from the regular system.
- F-6. Any contamination of skin, particularly with liquid concentrations or solutions, must be immediately washed off with detergent and water.
- F-7. Protective clothing and equipment should be used as recommended by the pesticide label. Recommended articles of protective clothing are gloves, rubber aprons, coveralls, face shields, safety shoes, hard hats and respirators. A lightweight water and chemical resistant throwaway type protective clothing that is impervious to herbicides is now available.
- F-8. Clothing contaminated by spillage must be removed immediately and properly disposed of (TIM 21). Special care is required to prevent contamination of the insides of gloves. Gloves shall be selected based on their resistance to chemical permeation by the pesticide to be applied.
- F-9. Corps personnel handling, mixing, and applying pesticides requiring respiratory protection shall be fully indoctrinated in the district respiratory protection program, including proper selection, use, maintenance and storage of respiratory protective devices. Prior to use, they shall be fit tested by a qualified person using either the qualitative or quantitative method (ER 385-1-90). Respirators approved by MSHA/NIOSH for the use condition encountered must be worn as required by the label while pesticides are being mixed, and when dusts or liquids are being handled or sprayed. Filters or canisters must be changed after 8 hours use and more often if odor of the pesticide is detected. (Always have extra cartridges available.)
- F-10. Pesticide Storage, Mixing and Formulation Facilities.
- a. All pesticides must be stored in a dry, well ventilated, separate room, building or covered area not accessible to unauthorized personnel or the public and must be secured by lock and key.
  - b. Identification signs should be placed on rooms, buildings, and fences to advise of the contents and warn of their hazardous nature.
  - c. Where applicable, the outside of each storage area should be labeled with "Danger," "Poison," and "Pesticide Storage" signs.

d. Fire extinguishers must be installed near the door of material storage rooms. Diluted oil based pesticides are flammable and must be stored separate from other materials.

e. Enclosed mixing areas require the installation of local exhaust ventilation with a minimum face velocity of 100 linear feet per minute (air velocity at the ventilation hood to control toxic vapors. Storage areas should be provided general ventilation at a rate of 10 airchanges/hour.

f. Drainage systems for mixing and storage areas must be separated from the regular system; see TIM 17.

3-B-11. Empty pesticide containers must be disposed of properly as required by EPA guidance (40 CFR 165 Subpart C).

F-12. Safety programs, to include a job/activity hazard analysis, shall be developed for the safe handling, mixing and application of pesticides. This analysis shall be coordinated with the Safety Office prior to implementation.

F-13. Medical Surveillance: The period of examinations should be based on anticipated exposure. If pesticide/herbicide application is not performed in a given year, the examination may be waived. Subsequently, exams will be given prior to and following the spraying season. The requirements for a medical surveillance program are as follows:

a. Physical Exams. Major elements for a physical include:

- Routine physical examination with emphasis on renal, kidney, hepatic, skin, central nervous and respiratory systems
- occupational and medical history
- evaluation of ability to wear protective equipment, including specific types of respirators
- hearing
- vision screening
- complete blood count
- urinalysis
- liver function
- red blood cell cholinesterase (quarterly, during spraying season, if cholinesterase inhibiting materials are used)
- pulmonary function test
- EKG - over 40 years of age

- chest x-ray - every 2-3 years

b. Medical Records. Medical records will be maintained in official medical personnel files.

c. First Aid. If a spill or splash occurs to eyes or skin, the body part will be thoroughly flushed with clean water and the medical provider consulted.

d. Medical Emergencies. In the event of a medical emergency involving severe inhalation or skin exposure, procedures as outlined on the specific pesticide label will be followed and the emergency medical provider consulted as appropriate. Arrangements for emergency medical treatment shall be made in advance where possible with local medical facilities.